

WHAT IS CLAIMED IS:

- 1 1. A computer implemented method for resolving host names on a
2 network, comprising:
 - 3 receiving at a modem a host name query from a client
4 computer;
 - 5 simultaneously transmitting said host name query from said
6 modem to a plurality of Domain Name System (DNS) servers; and
 - 7 returning a response to said client computer from said modem,
8 where said response is based on said host name query and any
9 responses received from said DNS servers.
- 1 2. The computer implemented method of claim 1, wherein said returning
2 further comprises:
 - 3 acquiring at least one address associated with said host name
4 query, from said DNS servers;
 - 5 returning said address to said client computer, such that said
6 client can send a request for content to said address.
- 1 3. The computer implemented method of claim 2, further comprising the
2 steps, after said acquiring step, of:
 - 3 determining that a plurality of addresses was acquired from said
4 DNS servers; and
 - 5 eliminating all but one of said addresses.
- 1 4. The computer implemented method of claim 3, wherein said
2 eliminating comprises rejecting all but the most recent address.
- 1 5. The computer implemented method of claim 3, wherein said
2 eliminating comprises rejecting all addresses not provided by a service
3 provider DNS server.

1 6. The computer implemented method of claim 1, wherein said returning
2 further comprises:

3 determining that a host has not been located by said DNS
4 servers;

5 performing a search using said host name query as a search
6 string; and

7 transmitting a results address of where results of said search
8 are located, to said client computer.

1 7. The computer implemented method of claim 6, wherein said
2 performing further comprises sending said host name query as a search
3 string to a search engine.

1 8. The computer implemented method of claim 7, wherein said sending
2 further comprises sending said host name query as a search string to a
3 search engine selected by a service provider.

1 9. The computer implemented method of claim 7, wherein said sending
2 step further comprises sending said host name query as a search string to a
3 search engine selected by a system administrator.

1 10. The computer implemented method of claim 1, wherein said returning
2 step further comprises:

3 searching a cache for an address associated with said host
4 name query; and

5 returning a located address to said client, such that said client
6 computer can send a request for content to said address.

1 11. The computer implemented method of claim 1, wherein said returning
2 step further comprises:

3 searching a cache based on said host name query;

4 returning cached content associated with said host name query
5 to said client computer, such that said client can display said content.

1 12. The computer implemented method of claim 1, wherein said modem is
2 coupled to a VPN (Virtual Private Network), and at least one of said plurality
3 of DNS servers forms part of the VPN.

1 13. A computer program product for resolving host names on a Virtual
2 Private Network (VPN), the computer program product comprising a computer
3 readable storage and a computer program embedded therein, the computer
4 program comprising:

5 instructions for receiving a host name query from a client
6 computer;

7 instructions for simultaneously transmitting said host name
8 query to a plurality of Domain Name System (DNS) servers; and
9 instructions for returning a response to said client computer
10 where said response is based on said host name query and any
11 responses received from said DNS servers.

1 14. The computer program product of claim 13, wherein said instructions
2 for returning further comprise:

3 instructions for acquiring at least one address associated with
4 said host name query, from said DNS servers;

5 instructions for returning said address to said client computer,
6 such that said client can send a request for content to said address.

1 15. The computer program product of claim 14, wherein said instructions
2 for returning further comprise:

3 instructions for determining that a plurality of addresses was
4 acquired from said DNS servers; and
5 instructions for eliminating all but one of said addresses.

1 16. The computer program product of claim 15, wherein said instructions
2 for eliminating comprise instructions for rejecting all but the most recent
3 address.

1 17. The computer program product of claim 15, wherein said instructions
2 for eliminating comprise instructions for rejecting all addresses not provided
3 by a service provider DNS server.

1 18. The computer program product of claim 13, wherein said instructions
2 for returning comprise:
3 instructions for determining that a host has not been located by
4 said DNS servers;
5 instructions for performing a search using said host name query
6 as a search string; and
7 instructions for transmitting an address of where results of said
8 search can be viewed to said client computer.

1 19. The computer program product of claim 18, wherein said instructions
2 for performing comprise instructions for sending said host name query as a
3 search string to a search engine.

1 20. The computer program product of claim 19, wherein said instructions
2 for sending further comprise instructions for sending said host name query as
3 a search string to a search engine selected by a service provider.

1 21. The computer program product of claim 19, wherein said instructions
2 for sending further comprise instructions for sending said host name query as
3 a search string to a search engine selected by a system administrator.

1 22. The computer program product of claim 13, wherein said instructions
2 for returning step further comprise:

3 instructions for searching a cache for an address associated
4 with said host name query; and
5 instructions for returning a located address to said client, such
6 that said client computer can send a request for content to said
7 address.

1 23. The computer program product of claim 13, wherein said instructions
2 for returning further comprise:

3 instructions for searching a cache based on said host name
4 query;
5 instructions for returning cached content associated with said
6 host name query to said client computer, such that said client can
7 display said content.

1 24. The computer program product of claim 13, wherein said modem is
2 coupled to a VPN (Virtual Private Network), and at least one of said plurality
3 of DNS servers forms part of the VPN.